The ISB Explorer

INFORMATION SERVICES BRANCH ISB NORTHERN CA - NORTH COAST REGION

Spring 2004

California Dept. Fish and Game NCNCR-ISB Quarterly News and Information

The Habitat and Wildlife Monitoring Project Continues to Grow *by Clint Kellar & David O. Smith*

Northern California – North Coast staff have successfully completed another season of data collection for the Habitat and Wildlife Monitoring Project. Initiated in 2001, this pioneering, landscape level project was developed to provide information to guide biologists, land managers, and the public in decisions regarding management of forest and rangeland habitats. The project goals are to describe the current abundance, distribution and condition of habitat types and stages, determine the current abundance and distribution of California Wildlife Habitat Relationships (CWHR) habitat elements, and determine the trends in abundance, distribution and condition of habitats, elements and wildlife species through time.

During 2002 and 2003, NCNCR biologists and seasonal field staff have sampled a total of 130 plots. In 2002, the study area focused on the Southern Cascades Section M261D of the "Ecological Units of California", defined by the United States Department of Agriculture, Forest Service and Natural Resource Conservation Service. The study area was expanded in 2003 to include the Modoc Plateau Section (M261G).

Plot sampling includes vegetative surveys that assess the species composition, diameter and canopy closure of trees. These are indicators of wildlife habitat quality. Ground cover is measured to describe changing

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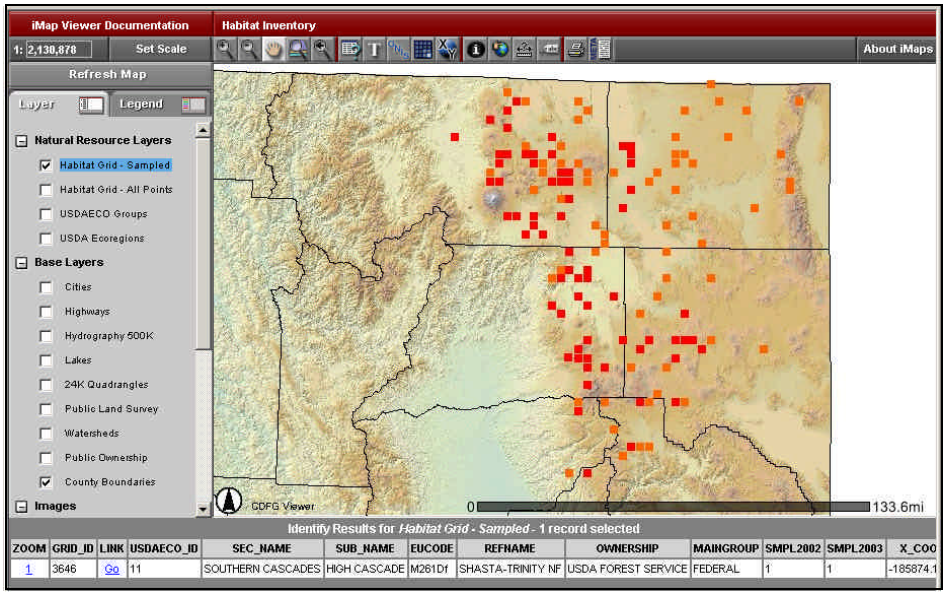

HabPlot, the online iMap application, allows users to view GIS layers associated with the project.

What Is ISB?

The Information Services Branch (ISB) was formed in 2000 in the Northern California North Coast Region (NCNCR) to provide the region with information services relative to its natural resource management responsibilities. ISB staff provide support to region staff in the areas of Geographical Information Systems (GIS), Global Positioning Systems (GPS), application and database development, education and training, web- and intranet-based tools, and coordination among staff and programs within DFG as well as between DFG and other entities. The ISB is managed in coordination with the Wildlife, Habitat Conservation, and Fisheries Branches of NCNCR, and provides support to all region staff.

ISB's mission is: "To provide the NCNCR with leadership, innovation, and support for the effective integration of data and information into its natural resource management efforts, while maintaining a professional, supportive, and friendly work environment."

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In This Issue:

TIPS & TOOLS

Using the Spatial Locator Tool

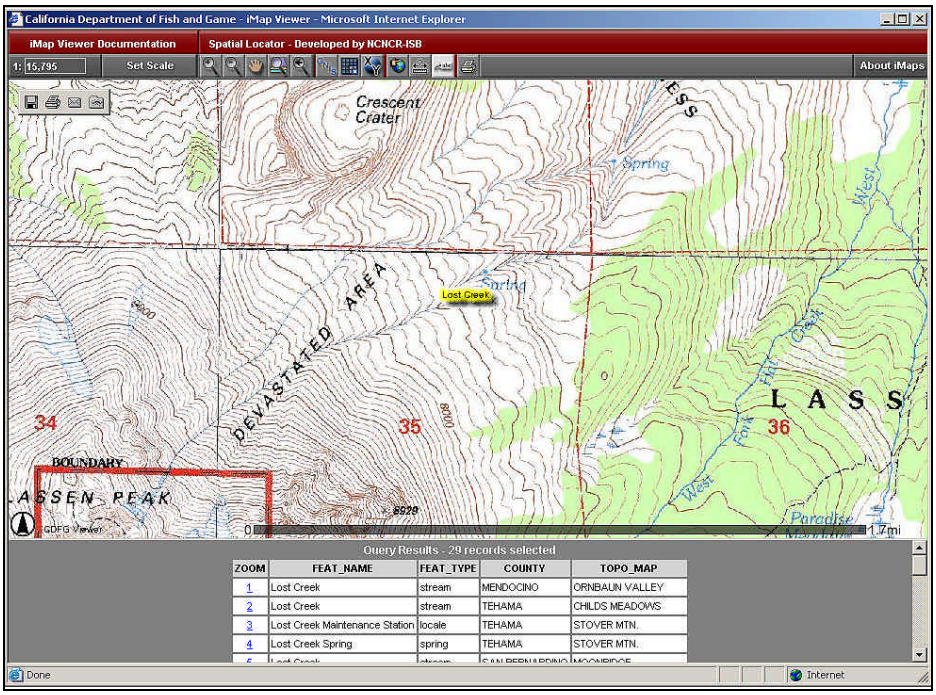
by Jim Hotchkiss

1. Can you find Lost Creek?

2. How far is the swim from Alcatraz Island to Fisherman's Wharf?

3. What is the Latitude/ Longitude of Disneyland? Patrick's Point? Mount Whitney?

4a. Suppose an amateur birder gave you GPS coordinates for a possible bald eagle nest, could you locate it? 4b. Suppose he gave you the information in Township/Range/Section.



Spatial Locator with a custom label showing the headwaters of Lost Creek on Mount Lassen.

All of these questions and more can be easily answered in a matter of seconds from your desktop computer using ISB's Spatial Locator tool. Spatial Locator is an internet mapping service created and maintained by ISB. It serves up seamless, digital USGS topographical maps in 24,000, 100,000, and 250,000 scales for the entire state of California. It is designed to provide quick answers to simple geographical questions. Spatial Locator also gives the ability to print maps exactly as they appear on your screen.

To access Spatial Locator go to the Information Services Branch website: http://ncncr-isb.dfg.ca.gov, click "Map Applications", then click "Spatial Locator". Further questions/comments can be directed to any ISB staff member.

Answers:

1. Use the Geographical Names Information System (GNIS) tool to search for "Lost Creek". The results are returned at the bottom of the screen, the additional data fields help you to determine which "Lost Creek" you are looking for. Click the number in the left column to zoom to the feature.

2. Use GNIS as above to locate "Alcatraz Island". Use the Zoom and Pan tools such that you can see both Alcatraz and Fisherman's Wharf in the same view. Use the Measure tool, click once on Alcatraz, click a second time on Fisherman's Wharf. Results are displayed at the bottom of the screen.

3. Use GNIS as above to locate each feature. Hint: when you enter Patrick's Point, do not use an apostrophe, this will cause an error. Hint: if you enter "Mount Whitney" you will not find the highest summit in California; however, if you enter "Whitney" every feature with "Whitney" in the name with be returned. You must then search through the list until you find, "Whitney, Mount", which is a 'summit' feature in Inyo County, on the Mount Whitney quad.

Once you have located a feature, use the 'Get Coordinates' tool to determine the Latitude/Longitude. Note: all coordinates are in NAD 1983 Datum.

4a. Use the 'Locate by Coordinates' tool. UTM or Lat/ Long can be used. Note the datum must match that of the GPS settings. If using Lat/Long remember that Longitude goes in the left box. The results are returned at the bottom of the screen, (Note: all coordinates are in NAD 1983 Datum) click the "Go" link in the far left column to zoom to the point.

4b. Use the 'TRS Query' tool. Specify the Township, Range, Section, and if known, the Meridian. If Section and Meridian are not known choose "Any". Results are displayed at the bottom of the screen, click the number in the left column to zoom to the feature.

Ask ISB

This section is intended to answer questions and address comments posed by our readers. Your questions and comments are welcome and may be directed to CShannon@dfg.ca.gov
Some topics may be explored in more detail in future newsletters.

Q. What is CalFish?
A. CalFish is a cooperative effort to provide direct access to many different types of data relating to fish and aquatic habitats. These include:

- *Anadromous fish population trends and counts*
- *Hatchery Returns and Releases*
- *Habitat restoration projects*
- *And links to various datasets including:*
  - *Migration barrier data*
  - *Distributions*
  - *GIS resources*
  - *StreamNet Reference Library*
  - *Anadromous fish species information*

Q. Where can I access CalFish?
A. www.calfish.org You may also access CalFish via the ISB website, http://ncncr-isb.dfg.ca.gov, click "Map Applications", and then click "CalFish".

Q. How do I find the data that I'm looking for?
A. Users may tap into CalFish data resources through an interactive map query.
1. Select the "Interactive Mapper" button.
2. Expand the "Natural Resource Layers" button to see the layer controls.
3. Select one natural resource layer (e.g. "Steelhead") by checking the adjacent box.
4. Make the same layer active by clicking on it to highlight it.
5. Click the "Refresh Map" button.

6. Zoom to a smaller geographic area or watershed by selecting the ZOOM tool (plus icon upper left) on the tool bar and then drawing a smaller box on the map. Or


select the "GNIS" tool icon and enter the name of the location and zoom to it directly.
7. Use the identify button to click on a map feature. Information associated with that feature will appear at the bottom of your screen.

- *If the map feature is associated with an extensive dataset, a summary is displayed and a link button "Go" provides access to the detailed data.*
- *Use the "Zoom to" button for a closer look at the selected map feature.*

The CalFish website is still under development. The page layout and some of the features may be reformatted in the near future. Additionally, detailed instructions regarding use of the query system will be coming soon. In the mean time, feel free to request additional assistance.
For assistance using the CalFish query system phone Connie Shannon at (530)225-2155

Habitat Monitoring Project

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conditions on the forest floor. Several "habitat elements" identified in the California Wildlife Habitat Relationships Program (CWHR) are monitored. CWHR models provide association "links" with each of these elements to wildlife species based on levels of dependency. Small mammal populations are monitored using live trapping. Bird populations are assessed by recording breeding calls on timer activated tape recorders, and motion activated cameras are placed on survey plots to record wildlife attracted to bait. The information gathered from this program will provide a reliable basis for the Department's input to forest management decisions on both private and public lands.

The Information Services Branch has assisted in this project through the

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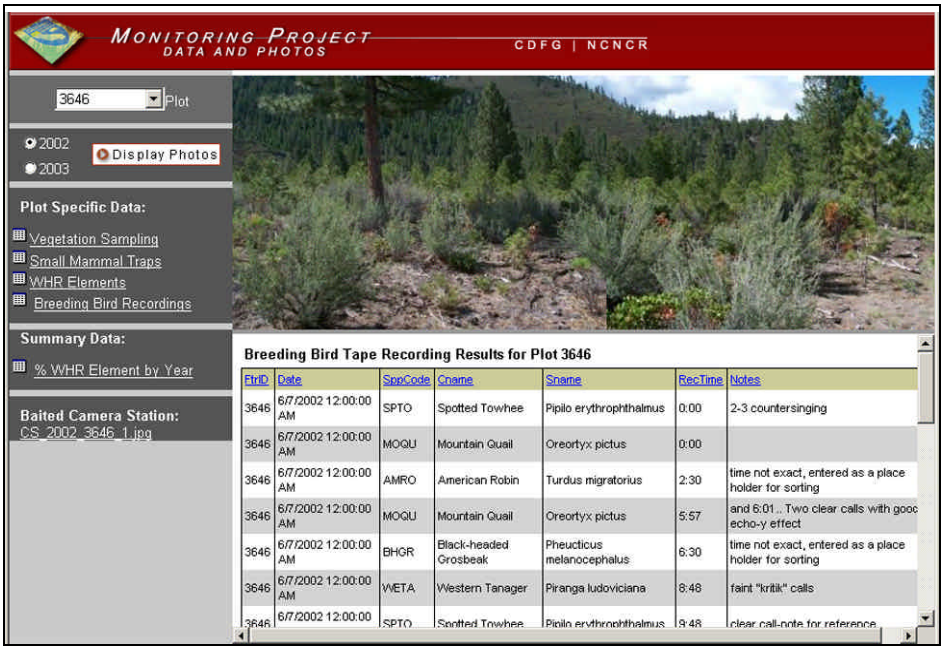

Cardinal photos, baited camera photos, and tabular information is available via the monitoring project's Data and Photos web page.

What Is ISB?

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There are currently eight staff members with the ISB:

Eric Haney has been the ISB Manager since its inception 4 years ago. Eric's educational background is in Biology and Natural Resource Management with a coincident focus on GIS and Remote Sensing. Current professional interests include finding technological solutions to traditional natural resource challenges and exploring the newly emerging science of networks. On his time off, Eric enjoys mountain biking, woodworking, and travel.

Clint Kellar has worked with ISB for 4 years, and has provided GIS support to NCNCR since 1996. He provides technical support and training in the use of GIS applications, and performs a wide variety of spatial analysis, mapping, and programming activities. He is also involved in the management of hardware and software utilized for GIS, database, and internet applications.

Doug Burch has been with the Department for over 7 years. He has a background in fisheries biology, computer programming, database design, management, and integration with GIS. He offers assistance with database application development and support for database management projects. His experience includes Access and other Office software, ESRI applications such as ArcGIS, and database development for desktop and web applications.

Jim Hotchkiss has six years experience working with GIS in natural resources at Dept. Water Resources, Caltrans, and DFG; the last 3 1/2 years he has been with NCNCR ISB. Past projects have included mapping Coho Salmon distribution, calculating stream gradient, Black Bear habitat modeling, mapping surface water diversions in Shasta and Scott Valleys, GPS training including Trimble and Garmin units, and Internet Map Service training. Current projects include updating Coho Salmon distribution, coordinating the datum shift from NAD27 to NAD83, and mapping warden patrol area boundaries. Jim is also a Lieutenant in the U.S. Coast Guard Reserve, working in the Pacific Area Intelligence Division, Alameda, CA.

Linda Miller has been with ISB for 4 years, and has formal training in GIS/ GPS and a background in biology. She offers support and training to coastal NCNCR staff doing spatial data analysis, mapping, and GPS. Projects include a bathymetry/elevation model of Lake Earl, stream-gradient modeling, and an inventory of residual old-growth trees using aerial videography.

Tom Christy has been working with ISB at Redding for the last 2 1/2 years. He is originally from Arizona where he received formal geography training. Tom has conducted GPS training, worked with NCNCR staff on specific mapping projects, and completed California statewide routed hydrography while with ISB.

Connie Shannon is the Senior Fisheries Data Technician for the CalFish Anadromous Fisheries Database. She has been compiling and maintaining CalFish's salmonid abundance information, working out of the DFG Regional Office in Redding, for the past six years. Connie offers NCNCR assistance in the use of the CalFish web site and in locating and obtaining anadromous fisheries documents and reports.

Robin Mackey has worked for ISB as a Scientific Aide in GIS since October of 2002. She has provided support for NCNCR staff by producing cartographic layouts for reports and posters, assisting in web-based mapping applications training, integrating data into suitable GIS formats, and the spatial analysis and mapping of the distribution of sage grouse in Lassen & Modoc counties. Her educational background is in geography with an emphasis in GIS and cartography.

Remember, Service is in our name, so feel free to call any of us if you have an issue we can help you with!

Habitat Monitoring Project

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development of sample locations, using custom tools developed in ArcView to randomly select plots to be sampled during the field season, and by providing printed maps, GPS coordinates, and appropriate training to field staff. Following field sampling, all field data and associated information (cardinal photos, baited camera photos) is entered into a master database.

ISB staff has developed an internet-based application in an effort to make all information collected for this project available. This includes an online map application which displays the plot locations and associated GIS layers. This application also contains a link to the field data and associated photos.

For more information regarding the Habitat and Wildlife Monitoring Project, including access to it's associated online applications, visit ISB's website at http://ncncr-isb.dfg.ca.gov. Click the "Monitoring Project" link in the lower left-hand column of the main page.

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